

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: EDWARD R. GATES  
WOLF, GREENFIELD & SACKS. P.C.  
600 ATLANTIC AVENUE  
BOSTON MA 02210

## PCT

### NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

Date of Mailing  
(day/month/year) **13 SEP 2002**

Applicant's or agent's file reference  
HO535/7010WO

#### IMPORTANT NOTIFICATION

International application No.  
PCT/US00/20210

International filing date (day/month/year)  
24 JULY 2000

Priority Date (day/month/year)  
22 JULY 1999

Applicant  
PERICOR SCIENCE, INC.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

DAVID M. NAFF

Telephone No. (703) 308-0196

## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference HO535/7010WO	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No. PCT/US00/20210	International filing date (day/month/year) 24 JULY 2000	Priority date (day/month/year) 22 JULY 1999
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant PERICOR SCIENCE, INC.		

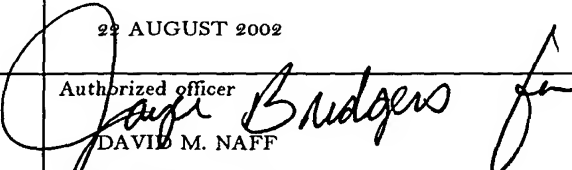
1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 4 sheets.

☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of — sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of report with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☐ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 09 FEBRUARY 2001	Date of completion of this report 22 AUGUST 2002
Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  DAVID M. NAIFF
Facsimile No. (703) 305-3230	Telephone No. (703) 308-0196

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/20210

**I. Basis of the report**1. With regard to the **elements** of the international application:\*☒ the international application as originally filed☒ the description:

pages 1-82 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

☒ the claims:

pages 83-93 , as originally filed  
pages NONE , as amended (together with any statement) under Article 19  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

☒ the drawings:

pages 1 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

☒ the sequence listing part of the description:

pages NONE , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).☐ the language of publication of the international application (under Rule 48.3(b)).☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:☐ contained in the international application in printed form.☐ filed together with the international application in computer readable form.☐ furnished subsequently to this Authority in written form.☐ furnished subsequently to this Authority in computer readable form.☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.4. ☒ The amendments have resulted in the cancellation of:☒ the description, pages NONE☒ the claims, Nos. NONE☒ the drawings, sheets/fig NONE5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

\*\*Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/20210

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

☒ the entire international application.

☐ claims Nos. \_

because:

☐ the said international application, or the said claim Nos. \_ relate to the following subject matter which does not require international preliminary examination (*specify*).

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_ are so unclear that no meaningful opinion could be formed (*specify*).

☐ the claims, or said claims Nos. \_ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 1-73.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/20210

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): A61K 38/43, 7/42, 38/46, 7/00, 9/14; C12N 11/02, 11/08, 11/06; C07K 17/02, 17/06, 17/08 and US Cl.: 424/94.1, 59, 94.6, 401, 489; 435/177, 180, 181; 530/812, 815, 816

HOME COPY

PCT

## REQUEST

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

For receiving Office use only	
PCT/US 00/20210	
International Application No.	
International Filing Date 24 JUL 2000 (24.07.00)	
PCT INTERNATIONAL	
Name of receiving Office and PCT International Application	

Applicant's or agent's file reference: H0535/7010WO  
(if desired) (12 characters maximum)

Box No. I TITLE OF INVENTION LINKAGE OF AGENTS TO TISSUE	
Box No. II APPLICANT	
Name and address: (Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)  PERICOR SCIENCE, INC. One Kendall Square Building 600, PMB 299 Cambridge, Massachusetts 02139 United States of America	<input type="checkbox"/> This person is also inventor.  Telephone No.  Facsimile No.  Teleprinter No.
State (that is, country) of nationality: US	State (that is, country) of residence: US
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input checked="" type="checkbox"/> all designated States except the United States of America <input type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box	
Box No. III FURTHER APPLICANT(S) AND/OR (FURTHER) INVENTOR(S)	
Name and address: (Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)  GREEN, Howard 82 Williston Street Brookline, Massachusetts 02146 United States of America	This person is:  <input type="checkbox"/> applicant only <input checked="" type="checkbox"/> applicant and inventor <input type="checkbox"/> inventor only (If this check-box is marked, do not fill in below.)
State (that is, country) of nationality: US	State (that is, country) of residence: US
This person is applicant for the purposes of: <input type="checkbox"/> all designated States <input type="checkbox"/> all designated States except the United States of America <input checked="" type="checkbox"/> the United States of America only <input type="checkbox"/> the States indicated in the Supplemental Box	
<input checked="" type="checkbox"/> Further applicants and/or (further) inventors are indicated on a continuation sheet.	
Box No. IV AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE	
The person identified below is hereby/has been appointed to act on behalf of the applicant(s) before the competent International Authorities as: <input checked="" type="checkbox"/> agent <input type="checkbox"/> common representative	
Name and address: (Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)  GATES, Edward R. Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, Massachusetts 02210 United States of America Address for correspondence	Telephone No. 617 720-3500  Facsimile No. 617 720-2441  Teleprinter No.
<input type="checkbox"/> Mark this check-box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.	

Continuation of Box No. III

## FURTHER APPLICANTS AND/OR (FURTHER) INVENTORS

*If none of the following sub-boxes is used, this sheet is not to be included in the request.*

Name and address: *(Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

RANDO, Robert R.  
60 Montvale Road  
Newton Center, Massachusetts 02459  
United States of America

This person is:

- ☐ applicant only  
☒ applicant and inventor  
☐ inventor only *(If this check-box is marked, do not fill in below.)*

State (that is, country) of nationality: US

State (that is, country) of residence: US

This person is applicant for the purposes of:

- ☐ all designated States  
☐ all designated States except the United States of America  
☒ the United States of America only  
☐ the States indicated in the Supplemental Box

Name and address: *(Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only *(If this check-box is marked, do not fill in below.)*

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States  
☐ all designated States except the United States of America  
☐ the United States of America only  
☐ the States indicated in the Supplemental Box

Name and address: *(Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only *(If this check-box is marked, do not fill in below.)*

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States  
☐ all designated States except the United States of America  
☐ the United States of America only  
☐ the States indicated in the Supplemental Box

Name and address: *(Family name, followed by given name; for a legal entity, full official designation. The address must include postal code and name of country. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below.)*

This person is:

- ☐ applicant only  
☐ applicant and inventor  
☐ inventor only *(If this check-box is marked, do not fill in below.)*

State (that is, country) of nationality:

State (that is, country) of residence:

This person is applicant for the purposes of:

- ☐ all designated States  
☐ all designated States except the United States of America  
☐ the United States of America only  
☐ the States indicated in the Supplemental Box

☐ Further applicants and/or further inventors are indicated on another continuation sheet.

Box No. V

## DESIGNATION OF STATES

The following designations are hereby made under Rule 4.9(a) (mark the applicable check-boxes; at least one must be marked):

## Regional Patent

- ☒ **AP** **ARIPO Patent:** GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, SD Sudan, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT
- ☒ **EA** **Eurasian Patent:** AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of the Eurasian Patent Convention and of the PCT
- ☒ **EP** **European Patent:** AT Austria, BE Belgium, CH and LI Switzerland and Liechtenstein, CY Cyprus, DE Germany, DK Denmark, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, and any other State which is a Contracting State of the European Patent Convention and of the PCT
- ☒ **OA** **OAPI Patent:** BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment is desired, specify on dotted line) .....

**National Patent** (if other kind of protection or treatment desired, specify on dotted line):

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> <b>AL</b> Albania .....                               | <input checked="" type="checkbox"/> <b>LS</b> Lesotho .....                                   |
| <input checked="" type="checkbox"/> <b>AM</b> Armenia .....                               | <input checked="" type="checkbox"/> <b>LT</b> Lithuania .....                                 |
| <input checked="" type="checkbox"/> <b>AT</b> Austria .....                               | <input checked="" type="checkbox"/> <b>LU</b> Luxembourg .....                                |
| <input checked="" type="checkbox"/> <b>AU</b> Australia .....                             | <input checked="" type="checkbox"/> <b>LV</b> Latvia .....                                    |
| <input checked="" type="checkbox"/> <b>AZ</b> Azerbaijan .....                            | <input checked="" type="checkbox"/> <b>MD</b> Republic of Moldova .....                       |
| <input checked="" type="checkbox"/> <b>BA</b> Bosnia and Herzegovina .....                | <input checked="" type="checkbox"/> <b>MG</b> Madagascar .....                                |
| <input checked="" type="checkbox"/> <b>BB</b> Barbados .....                              | <input checked="" type="checkbox"/> <b>MK</b> The former Yugoslav Republic of Macedonia ..... |
| <input checked="" type="checkbox"/> <b>BG</b> Bulgaria .....                              |   |
| <input checked="" type="checkbox"/> <b>BR</b> Brazil .....                                | <input checked="" type="checkbox"/> <b>MN</b> Mongolia .....                                  |
| <input checked="" type="checkbox"/> <b>BY</b> Belarus .....                               | <input checked="" type="checkbox"/> <b>MW</b> Malawi .....                                    |
| <input checked="" type="checkbox"/> <b>CA</b> Canada .....                                | <input checked="" type="checkbox"/> <b>MX</b> Mexico .....                                    |
| <input checked="" type="checkbox"/> <b>CH and LI</b> Switzerland and Liechtenstein .....  | <input checked="" type="checkbox"/> <b>NO</b> Norway .....                                    |
| <input checked="" type="checkbox"/> <b>CN</b> China .....                                 | <input checked="" type="checkbox"/> <b>NZ</b> New Zealand .....                               |
| <input checked="" type="checkbox"/> <b>CU</b> Cuba .....                                  | <input checked="" type="checkbox"/> <b>PL</b> Poland .....                                    |
| <input checked="" type="checkbox"/> <b>CZ</b> Czech Republic .....                        | <input checked="" type="checkbox"/> <b>PT</b> Portugal .....                                  |
| <input checked="" type="checkbox"/> <b>DE</b> Germany .....                               | <input checked="" type="checkbox"/> <b>RO</b> Romania .....                                   |
| <input checked="" type="checkbox"/> <b>DK</b> Denmark .....                               | <input checked="" type="checkbox"/> <b>RU</b> Russian Federation .....                        |
| <input checked="" type="checkbox"/> <b>EE</b> Estonia .....                               | <input checked="" type="checkbox"/> <b>SD</b> Sudan .....                                     |
| <input checked="" type="checkbox"/> <b>ES</b> Spain .....                                 | <input checked="" type="checkbox"/> <b>SE</b> Sweden .....                                    |
| <input checked="" type="checkbox"/> <b>FI</b> Finland .....                               | <input checked="" type="checkbox"/> <b>SG</b> Singapore .....                                 |
| <input checked="" type="checkbox"/> <b>GB</b> United Kingdom .....                        | <input checked="" type="checkbox"/> <b>SI</b> Slovenia .....                                  |
| <input checked="" type="checkbox"/> <b>GD</b> Grenada .....                               | <input checked="" type="checkbox"/> <b>SK</b> Slovakia .....                                  |
| <input checked="" type="checkbox"/> <b>GE</b> Georgia .....                               | <input checked="" type="checkbox"/> <b>SL</b> Sierra Leone .....                              |
| <input checked="" type="checkbox"/> <b>GH</b> Ghana .....                                 | <input checked="" type="checkbox"/> <b>TJ</b> Tajikistan .....                                |
| <input checked="" type="checkbox"/> <b>GM</b> Gambia .....                                | <input checked="" type="checkbox"/> <b>TM</b> Turkmenistan .....                              |
| <input checked="" type="checkbox"/> <b>HR</b> Croatia .....                               | <input checked="" type="checkbox"/> <b>TR</b> Turkey .....                                    |
| <input checked="" type="checkbox"/> <b>HU</b> Hungary .....                               | <input checked="" type="checkbox"/> <b>TT</b> Trinidad and Tobago .....                       |
| <input checked="" type="checkbox"/> <b>ID</b> Indonesia .....                             | <input checked="" type="checkbox"/> <b>UA</b> Ukraine .....                                   |
| <input checked="" type="checkbox"/> <b>IL</b> Israel .....                                | <input checked="" type="checkbox"/> <b>UG</b> Uganda .....                                    |
| <input checked="" type="checkbox"/> <b>IN</b> India .....                                 | <input checked="" type="checkbox"/> <b>US</b> United States of America .....                  |
| <input checked="" type="checkbox"/> <b>IS</b> Iceland .....                               | <input checked="" type="checkbox"/> <b>UZ</b> Uzbekistan .....                                |
| <input checked="" type="checkbox"/> <b>JP</b> Japan .....                                 | <input checked="" type="checkbox"/> <b>VN</b> Viet Nam .....                                  |
| <input checked="" type="checkbox"/> <b>KE</b> Kenya .....                                 | <input checked="" type="checkbox"/> <b>YU</b> Yugoslavia .....                                |
| <input checked="" type="checkbox"/> <b>KG</b> Kyrgyzstan .....                            | <input checked="" type="checkbox"/> <b>ZW</b> Zimbabwe .....                                  |
| <input checked="" type="checkbox"/> <b>KP</b> Democratic People's Republic of Korea ..... | <input checked="" type="checkbox"/> <b>ZA</b> South Africa .....                              |
|   | <input checked="" type="checkbox"/> <b>AE</b> United Arab Emirates .....                      |
| <input checked="" type="checkbox"/> <b>KR</b> Republic of Korea .....                     |   |
| <input checked="" type="checkbox"/> <b>KZ</b> Kazakhstan .....                            |   |
| <input checked="" type="checkbox"/> <b>LC</b> Saint Lucia .....                           |   |
| <input checked="" type="checkbox"/> <b>LK</b> Sri Lanka .....                             |   |
| <input checked="" type="checkbox"/> <b>LR</b> Liberia .....                               |   |

Check-boxes reserved for designating States (for the purposes of a national patent) which have become party to the PCT after issuance of this sheet:

- ☒ All States party to PCT as of International Filing Date  
☒ CR, DM, TZ, MA, AG, MZ, DZ, BZ

In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation of a designation consists of the filing of a notice specifying that designation and the payment of the designation and confirmation fees. Confirmation must reach the receiving Office within the 15-month time limit.)

Box No. VI

## PRIORITY CLAIM

Further priority claims are indicated in the Supplemental Box ☐

Filing date of earlier application (day/month/year)	Number Of earlier application	National application: country	Where earlier application is: regional application:* regional Office	international application: receiving office
item (1) 22 July 1999 (22.07.99)	09/359,986	US		
item (2)				
item (3)				

- ☒ The receiving Office is requested to prepare and transmit to the International Bureau a certified copy of the earlier application(s) (only if the earlier application was filed with the Office which for the purposes of the present international application is the receiving Office) identified above as item(s): 1

\* Where the earlier application is an ARIPO application, it is mandatory to indicate in the Supplemental Box at least one country party to the Paris Convention for the Protection of Industrial property for which that earlier application was filed (Rule 4.10(b)(ii)). See Supplemental Box.

Box No. VII

## INTERNATIONAL SEARCHING AUTHORITY

Choice of International Searching Authority (ISA)  
(If two or more International Searching Authorities are competent to carry out the international search, indicate the Authority chosen; the two-letter code may be used):

EP

Request to use results of earlier search; reference to that search (if an earlier search has been carried out by or requested from the International Search Auth.):

Date (day/month/year)

Number

Country (or regional Office)

Box No. VIII

## CHECK LIST

This international application contains the following number of sheets:

request : 4  
description (excluding sequence listing part) : 82  
claims : 11  
abstract : 1  
drawings : 1  
sequence listing part of description : 00  
Total number of sheets: 99

This international application is accompanied by the item(s) marked below:

1. ☒ fee calculation sheet w/authorization
2. ☐ separate signed power of attorney
3. ☐ copy of general power of attorney; reference number, if any:
4. ☐ statement explaining lack of signature
5. ☐ priority document(s) identified in Box No. VI as item(s):
6. ☐ translation of the international application into (language):
7. ☐ separate indications concerning deposited microorganisms or other biological material
8. ☐ nucleotide and/or amino acid sequence listing in computer readable form
9. ☒ other (specify): postcard, transmittal letter

Signature of the drawings which could accompany the abstract: 1

Language of filing of the

international application: English

Box No. IX

## SIGNATURE OF APPLICANT

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the request).

  
GATES, Edward R.

For receiving Office use only

1. Date of actual receipt of the purported international application: 424 Rec'd PCT/PTO 24 JUL 2000

3. Corrected date of actual receipt due to later but timely received papers or drawings completing the purported international application:

4. Date of timely receipt of the required corrections under PCT Article 11(2)

5. International Searching Authority specified by the applicant: ISA / EP

6. ☐ Transmittal of search copy delayed until search fee is paid

2. Drawings

☐ received☐ not received

For International Bureau use only

Date of receipt of the record copy by the International Bureau:

# PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

## PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL SEARCH REPORT  
OR THE DECLARATION

(PCT Rule 44.1)

To:

**WOLF, GREENFIELD & SACKS, P.C.**  
Attn. GATES, Edward R.  
600 Atlantic Avenue  
Boston, Massachusetts 02210  
UNITED STATES OF AMERICA

Date of mailing  
(day/month/year)

30/11/2000

Applicant's or agent's file reference

H0535/7010WO

**FOR FURTHER ACTION**

See paragraphs 1 and 4 below

International application No.

PCT/US 00/ 20210

International filing date  
(day/month/year)

24/07/2000

Applicant

**PERICOR SCIENCE INC.**

1. ☐ The applicant is hereby notified that the International Search Report has been established and is transmitted herewith.

**Filing of amendments and statement under Article 19:**

The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

**When?** The time limit for filing such amendments is normally 2 months from the date of transmittal of the International Search Report; however, for more details, see the notes on the accompanying sheet.

**Where?** Directly to the International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland  
Facsimile No.: (41-22) 740.14.35

For more detailed instructions, see the notes on the accompanying sheet.

2. ☒ The applicant is hereby notified that no International Search Report will be established and that the declaration under Article 17(2)(a) to that effect is transmitted herewith.

3. ☐ With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

☐ the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

☐ no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. **Further action(s):** The applicant is reminded of the following:

Shortly after 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

Within 19 months from the priority date, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later).

Within 20 months from the priority date, the applicant must perform the prescribed acts for entry into the national phase before all designated Offices which have not been elected in the demand or in a later election within 19 months from the priority date or could not be elected because they are not bound by Chapter II.

Name and mailing address of the International Searching Authority



European Patent Office, P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

**Claudia Aragone**

The demand must be filed directly with the competent International Preliminary Examining Authority or, if two or more Authorities are competent, with the one chosen by the applicant. The full name or two-letter code of the Authority may be indicated by the applicant on the line below:

JG04 Rec'd PCT/PTO 09 FEB 2001

IPEA/US

PCT

CHAPTER II

# DEMAND

under Article 31 of the Patent Cooperation Treaty:

The undersigned requests that the international application specified below be the subject of international preliminary examination according to the Patent Cooperation Treaty and hereby elects all eligible states (except where otherwise indicated).

For International Preliminary Examining Authority use only

Identification of IPEA /US	Date of Receipt of DEMAND Rec'd PCT/PTO 09 FEB 2001 (09.02.01)
----------------------------	---

<b>Box No. I IDENTIFICATION OF THE INTERNATIONAL APPLICATION</b>		Applicant's or agent's file reference H0535/7010WO
International Application No. PCT/US00/20210	International Filing Date (day/month/year) 24 July 2000 (24.07.00)	(Earliest) Priority date (day/month/year) 22 July 1999 (22.07.99)
Title of Invention LINKAGE OF AGENTS TO TISSUE		
<b>Box No. II APPLICANT(S)</b>		
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) PERICOR SCIENCE, INC. One Kendall Square Building 600, PMB 299 Cambridge, Massachusetts 02139 United States of America		Telephone No.:
		Facsimile No.:
		Teleprinter No.:
State (that is, country) of nationality: US	State (that is, country) of residence: US	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) GREEN, Howard 82 Williston Street Brookline, Massachusetts 02146 United States of America		
State (that is, country) of nationality: US	State (that is, country) of residence: US	
Name and address: (Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.) RANDO, Robert R. 60 Montvale Road Newton Center, Massachusetts 02459 United States of America		
State (that is, country) of nationality: US	State (that is, country) of residence: US	
<input type="checkbox"/> Further applicants are indicated on a continuation sheet.		

Form PCT/IPEA/401 (first sheet) (July 1998; reprint January 2000)  
Express Mail Label No. EL681814066US

See Notes to the demand form

**Box No. III AGENT OR COMMON REPRESENTATIVE; OR ADDRESS FOR CORRESPONDENCE**

The following person is ☒ agent ☐ common representative

And ☒ has been appointed earlier and represents the applicant(s) also for international preliminary examination.  
☐ is hereby appointed and any earlier appointment of (an) agent(s)/common representative is hereby revoked.  
☐ is hereby appointed, specifically for the procedure before the International Preliminary Examining Attorney, in addition to the agent(s)/common representative appointed earlier.

Name and address: *(Family name followed by given name; for a legal entity, full official designation. The address must include postal code and name of country.)*

Gates, Edward R.  
 Wolf, Greenfield & Sacks, P.C.  
 600 Atlantic Avenue  
 Boston, Massachusetts 02210  
 United States of America

Telephone No.:  
 (617) 720-3500

Facsimile No.:  
 (617) 720-2441

Teleprinter No.:

☐ **Address for Correspondence:** Mark this check box where no agent or common representative is/has been appointed and the space above is used instead to indicate a special address to which correspondence should be sent.

**Box No. IV BASIS FOR INTERNATIONAL PRELIMINARY EXAMINATION****Statement concerning amendments:\***

1. The applicant wishes the international preliminary examination to start on the basis of:

☒ the international application as originally filed

the description ☐ as originally filed  
☐ as amended under Article 34

the claims ☐ as originally filed  
☐ as amended under Article 19 (together with any accompanying statement)  
☐ as amended under Article 34

the drawings ☐ as originally filed  
☐ as amended under Article 34

2. ☐ The applicant wishes any amendment to the claims under Article 19 to be considered as reversed.

3. ☐ The applicant wishes the start of the international preliminary examination to be postponed until the expiration of 20 months from the priority date unless the International Preliminary Examining Authority receives a copy of any amendments made under Article 19 or a notice from the applicant that he does not wish to make such amendments (Rule 69.1(d)). *(This check-box may be marked only where the time limit under Article 19 has not yet expired.)*

\* Where no check-box is marked, international preliminary examination will start on the basis of the international application as originally filed or, where a copy of amendments to the claims under Article 19 and/or amendments of the international application under Article 34 are received by the International Preliminary Examining Authority before it has begun to draw up a written opinion or the international preliminary examination report, as so amended.

**Language for the purposes of international preliminary examination: . . . . English**

- ☒ which is the language in which the international application was filed.  
☐ which is the language of a translation furnished for the purposes of international search.  
☐ which is the language of publication of the international application  
☐ which is the language of the translation to be furnished for the purposes of international preliminary examination.

**Box No. V ELECTION OF STATES**

The applicant hereby elects all eligible States *(that is, all States which have been designated and which are bound by Chapter II of the PCT)* excluding the following States which the applicant wishes not to elect:

**Box No. VI CHECKLIST**

The demand is accompanied by the following elements, in the language referred to in Box No. IV, for the purposes of international preliminary examination:

- |    |   |   |        |
|----|---|---|--------|
| 1. | translation of international application                              | : | sheets |
| 2. | amendments under Article 34   | : | sheets |
| 3. | copy (or, where required, translation) of amendments under Article 19 | : | sheets |
| 4. | copy (or, where required, translation) of statement under Article 19  | : | sheets |
| 5. | letter  | : | sheets |
| 6. | other ( <i>specify</i> )  | : | sheets |

For International Preliminary Examining Authority use only

Received      not received

☐      ☐

☐      ☐

☐      ☐

☐      ☐

☐      ☐

☐      ☐

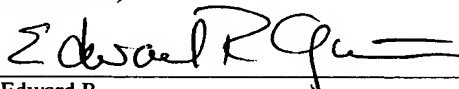
The demand is also accompanied by the item(s) marked below:

1. ☒ fee calculation sheet
2. ☐ separate signed power of attorney
3. ☐ copy of general power of attorney; reference number, if any:

4. ☐ statement explaining lack of signature
5. ☐ nucleotide and/or amino acid sequence listing in computer readable form
6. ☒ other (*specify*):  
Transmittal letter  
Postcard

**Box No. VII SIGNATURE OF APPLICANT, AGENT OR COMMON REPRESENTATIVE**

Next to each signature, indicate the name of the person signing and the capacity in which the person signs (if such capacity is not obvious from reading the demand).



Gates, Edward R.

For International Preliminary Examining Authority use only

1.	Date of actual receipt of DEMAND:	JG04 Rec'd PCT/PTO 09 FEB 2001 (09.02.01)
2.	Adjusted date of receipt of demand due to CORRECTIONS under Rule 60.1(b):	
3.	<input type="checkbox"/> The date of receipt of the demand is AFTER the expiration of 19 months from the priority date and item 4 or 5, below, does not apply.	<input type="checkbox"/> The applicant has been informed accordingly.
4.	<input type="checkbox"/> The date of receipt of the demand is WITHIN the period of 19 months from the priority date as extended by virtue of Rule 80.5.	
5.	<input type="checkbox"/> Although the date of receipt of the demand is after the expiration of 19 months from the priority date, the delay in arrival is EXCUSED pursuant to Rule 82.	

For International Bureau use only

Demand received from IPEA on:

Form PCT/IPEA/401 (last sheet) (July 1998; reprint January 2000)

See Notes to the demand form

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

## PCT

### WRITTEN OPINION

(PCT Rule 66)

To: EDWARD R. GATES  
WOLF, GREENFIELD & SACKS. P.C.  
600 ATLANTIC AVENUE  
BOSTON MA 02210

Date of Mailing  
(day/month/year)

30 JUL 2001

Applicant's or agent's file reference

HO535/7010WO

REPLY DUE

within ONE months  
from the above date of mailing

International application No.

PCT/US00/20210

International filing date (day/month/year)

24 JULY 2000

Priority date (day/month/year)

22 JULY 1999

International Patent Classification (IPC) or both national classification and IPC  
Please See Supplemental Sheet.

Applicant

PERICOR SCIENCE, INC.

1. This written opinion is the first (first, etc.) drawn by this International Preliminary Examining Authority.

2. This opinion contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step or industrial applicability
- IV ☐ Lack of unity of invention
- V ☐ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

3. The applicant is hereby invited to reply to this opinion.

**When?** See the time limit indicated above. ~~The applicant may, before the expiration of that time limit, request this Authority to grant an extension, see Rule 66.2(d).~~

**How?** By submitting a written reply, accompanied, where appropriate, by amendments, according to Rule 66.3. For the form and the language of the amendments, see Rules 66.8 and 66.9.

**Also** For an additional opportunity to submit amendments, see Rule 66.4.  
For the examiner's obligation to consider amendments and/or arguments, see Rule 66.4 *bis*.  
For an informal communication with the examiner, see Rule 66.6.

**If no reply is filed**, the international preliminary examination report will be established on the basis of this opinion.

4. The final date by which the international preliminary examination report must be established according to Rule 69.2 is: 22 NOVEMBER 2001.

Name and mailing address of the IPEA/US  
Commissioner of Patents and Trademarks  
Box PCT  
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

**TERRY J. DEY**

DAVID M. NAPP **PARALEGAL SPECIALIST**

TECHNOLOGY CENTER 1800  
Telephone No. (703) 308-0196

**I. Basis of the opinion****1. With regard to the elements of the international application:\***

- ☒ the international application as originally filed
- ☒ the description:  
pages 1-82 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the claims:  
pages 83-93 , as originally filed  
pages NONE , as amended (together with any statement) under Article 19  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the drawings:  
pages 1 , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_
- ☒ the sequence listing part of the description:  
pages NONE , as originally filed  
pages NONE , filed with the demand  
pages NONE , filed with the letter of \_\_\_\_\_

**2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.**

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

**3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the written opinion was drawn on the basis of the sequence listing:**

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

**4. ☒ The amendments have resulted in the cancellation of:**

- ☒ the description, pages NONE
- ☒ the claims, Nos. NONE
- ☒ the drawings, sheets/fig NONE

**5. ☐ This opinion has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed".

**III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

☒ the entire international application.

☐ claims Nos. \_

because:

☐ the said international application, or the said claim Nos. \_ relate to the following subject matter which does not require international preliminary examination (*specify*).

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. \_ are so unclear that no meaningful opinion could be formed (*specify*).

☐ the claims, or said claims Nos. \_ are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 1-73.

2. A written opinion cannot be drawn due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

WRITTEN OPINION

International application No.

PCT/US00/20210

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

**TIME LIMIT:**

The time limit set for response to a Written Opinion may not be extended. 37 CFR 1.484(d). Any response received after the expiration of the time limit set in the Written Opinion will not be considered in preparing the International Preliminary Examination Report.

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:  
IPC(7): A61K 38/43, 7/42, 38/46, 7/00, 9/14; C12N 11/02, 11/08, 11/06; C07K 17/02, 17/06, 17/08 and US Cl.: 424/94.1, 59, 94.6, 401, 489; 435/177, 180, 181; 530/812, 815, 816